



March 2005

# Economic and Revenue Forecast

*Fiscal Year 2005 – Third Quarter*



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Doug Sutherland - Commissioner of Public Lands

# Acknowledgements

The quarterly revenue forecast is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions this forecast could not be completed.

I want to extend special thanks to the individuals who provided information as part of our purchase's survey. These busy individuals and companies willingly provide information that is essential for estimating timber harvest volumes.

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Credit also goes to Billie-Lynn Wyckoff for the cover design.

Thank you,  
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March 24, 2005

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# Acronyms and abbreviations

C\$	Canadian dollar
CPI	Consumer Price Index
CY	Calendar Year
DNR	Washington State Department of Natural Resources
FDA	Forest Development Account
Fed	U.S. Federal Reserve
FY	Fiscal Year
GDP	Gross Domestic Product
mbf	Thousand board feet
MMbf	Million board feet
NAFTA	North American Free Trade Agreement
OPEC	Organization of Petroleum Exporting Nations
RMCA	Resource Management Cost Account
RCW	Revised Code of Washington
US\$	U.S. dollar
WTO	World Trade Organization
Y	Japanese yen

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# Preface

This forecast projects revenues from Washington State trust lands managed by the Department of Natural Resources (DNR). These revenues are distributed to funds as directed by statute. DNR revises its forecast quarterly to provide updated information for trust beneficiaries, as well as for department budgeting purposes.

This forecast covers fiscal years FY 05 through FY 09. The baseline date for this March 2005 forecast is December 31, 2004, the end of the second quarter of FY 05. While actual sales, removal and revenue data are current as of this date, the forecast is based on the most up-to-date data available at the time of their estimation. Macroeconomic and market outlook data are the most up-to-date available when the forecast was written.

Unless otherwise indicated, values are expressed in nominal terms, without adjustment for inflation. Therefore, interpretation of trends in the forecast require care in separating inflationary changes in the value of money over time from changes attributable to other economic influences.

## Forecast Calendar

The table below shows the anticipated schedule for future DNR Economic and Revenue forecasts. DNR forecasts provide information that is used in the statewide Washington Economic and Revenue Forecasts by the Office of the Forecast Council. The timing for DNR's forecast is determined by the schedule of the statewide forecast, prescribed by RCW 82.33.020. The schedule prescribed by RCW 82.33.020 is reflected in the release date, when preliminary revenue forecast estimates are available. Publication of the forecast document follows approximately two weeks later.

Forecast Calendar			
Forecast Title	Baseline Date	Release Date	Publication Date (Approx.)
June 2005	End Q3, FY 2005	June 3, 2005	June 27, 2005
September 2005	End Q4, FY 2005	Sept. 7, 2005	Sept. 21, 2005
November 2005	End Q1, FY 2006	Nov. 7, 2005	Nov. 21, 2005
March 2006	End Q2, FY 2006	March 7, 2006	March 21, 2006

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# Part 1: Current Economic Conditions

## **World economy**

World economic growth has slowed to just 2.3 percent during the last half of CY 2004. This slowness is expected to continue during the first half of CY 2005 then, lead by the U.S. economy, growth is expected to trend upward reaching 3 percent in CY 2006.

Strong growth in the U.S. has been partially offset by weakness in the domestic economies of Asia (less China) and most of Western Europe. High dollar-denominated commodity prices (especially oil) have also contributed to the slowdown, especially in Asia. The strong euro will continue to hamper exports and growth in the European Union. When dominated in euros, commodity prices have been falling for nearly a year.

The Asian economies (other than Japan) are all very energy intensive and are having their growth reduced by higher U.S. dollar denominated energy prices. The extensive currency management on the part of the central banks of Asian economies have maintained high oil prices in local currency terms and thus amplified the energy-related drag on economic growth.

Asia's economies find themselves in a pinch between their reliance on oil imports and their reliance on exports primarily to the U.S. – if they allow their local currency to appreciate against the U.S. dollar they risk reducing their export market; if they limit the appreciation of their local currency against the dollar, their economy will be hurt by higher energy costs. But the main problem for the Asian economies (including Japan) is a lack of domestic demand that would allow them to maintain total domestic production as their local currencies appreciate against the U.S. dollar.

In Asia, China's economy continues to be the one bright spot, surprising on the upside despite higher energy and commodity prices and government policies aimed at reining in the investment-led boom.

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In Canada, real GDP growth slipped to just 1.7 percent as exports and manufacturing suffered under the weight of a strong Canadian dollar.

## **U.S. economy**

*“All told, the economy seems to have entered 2005 expanding at a reasonably good pace, with inflation and inflation expectations well anchored, on the whole, financial markets appear to share this view”*

Fed Chairman Alan Greenspan  
February 16, 2005

At a real growth rate of 3.8 percent, the U.S. economy has outperformed expectations during the last half of CY 2004 and thus far in 2005, despite record energy prices, rising short-term interest rates and the massive twin trade and federal deficits. Once again (in CY 2004) the U.S. consumer led the way with consumer spending increasing at a 4.2 percent annual rate. Business investment provided an additional boost with a 14 percent increase in business investment.

Despite the Federal Reserve's continued increase in short-term interest rates, longer-term rates have remained low with 30-year mortgage rates still below 6 percent. But pressure is mounting on longer term interest rates, the yield on ten year bonds, is currently at 4.50 percent, up 13 percent since hitting a low of 3.98 percent in February. Yield on 10-year bonds are still lower than they were before the Fed started raising rates last July.

Continued strong growth in the U.S. economy during CY 2005 is expected to allow the Federal Reserve to continue its slow increase in short-term interest rates that together with increased domestic demand and investor confidence will finally push up longer-term interest rates. At the same time, reduced overseas demand for U.S. dollar denominated assets will force U.S. interest rates even higher. Over the forecast period 30-year mortgage rates are expected to increase by 1 to 1.5 percent. As a result of higher interest rates, housing and other interest-sensitive sectors are expected to lag behind the overall growth in the U.S. economy.

## **U.S. Trade Deficit**

Despite a falling dollar, the U.S. trade deficit jumped 24 percent to a record high last year of \$617 billion, though the nation's trade picture showed slight improvement at the end of the year. The good news is that the deficit is moving, albeit slowly, in the right direction. Last year exports rose 12.3 percent to \$1.15 trillion dollars, but imports rose 16.3 percent to 1.7 trillion. The positive benefits of a falling dollar - reduced U.S. imports - will be partially offset by the drag it puts on our trading partners' economies. The drag will continue as long as our trading partner's consumers are unwilling to step up the pace of their consumption to offset the fall in exports.

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With expected growth in the U.S. economy significantly out pacing that of its trading partners, it's hard to see how the trade deficit could narrow, even if the U.S. dollar continues to fall as expected. In the short term, the best hope is that the U.S. economy grows faster than the deficit, resulting in its reduction as a proportion of GDP, even as the deficit continues to grow in absolute terms. In the longer term, higher rates of consumption by our trading partners' consumers are needed to bring trade flows into balance.

## **U.S. dollar continues to slide**

The dollar has depreciated in fits and starts since hitting a cyclical peak in early 2002. Since then, it has lost 36 percent against the euro, 25 percent against the Canadian dollar, and 23 percent against the yen. Since October, the dollar has weakened by 6 percent against the Japanese yen, 13 percent against the South Korean won, and 8 percent against the Taiwanese dollar. The Canadian dollar now stands at U.S.\$0.82 per Canadian dollar, the euro now stands at U.S.\$1.30 per euro, while the yen is at 105Y/ U.S. dollar.

The U.S. dollar is expected to continue to depreciate for the following reasons.

1. The U.S. current account deficit will continue to grow, making foreigners more leery of holding U.S. dollars and dollar denominated assets. To reduce their risk of asset loss due to the falling dollar, foreign central banks will begin diversifying their holdings away from dollar denominated assets;
2. Higher U.S. dollar denominated energy prices will give added incentive to energy dependent economies to allow their currencies to appreciate against the U.S. dollar to reduce energy costs in terms of their own currencies.
3. The U.S. dollar's standing as the world's reserve and exchange currency will be eroded resulting in a reduction in the demand for dollars and an increase in the demand for euros, and other alternative currencies.
4. U.S. interest rates will remain lower than those of its trading partners on an inflation-adjusted basis even as the Fed continues raising rates and long term rates begin to follow.

The dollar is expected to decline by another 20 to 30 percent over the next two years. Beginning in late 2006 or 2007 the slide will be halted as growth in the U.S. economy out paces the rest-of-world, pulling the dollar out of its slide.

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## Inflation and energy prices

*“Longer-term inflation expectations remain well contained, pressures on inflation have picked up in recent months and pricing power is more evident.”*

Federal Reserve Announcement  
March 22, 2005

Even with energy prices up sharply last year, overall CPI (Consumer Price Index) increased only 3 percent while core CPI was up just 2.3 percent. And the inflation rate for both the overall CPI and core CPI is even lower over the last three months. While current inflation indicators remain low, concern about inflation grows based on two factors – higher energy prices and a tightening of production capacity.

**Higher energy prices:** Energy prices have increased 10.6 percent during the last 12 months, as U.S. gas prices set all time highs in mid-March and are expected to push higher in coming weeks. Despite announcements by OPEC to increase the supply of oil, it now seems likely that dollar denominated energy prices will reach new levels this summer as energy prices appear to be on a new trading range in dollar terms.

The current high-energy prices aren't expected to go away any time soon for several reasons. First of all, world demand has been and will continue to increase, sopping up excess supply. Ironically OPEC (Organization of Petroleum Exporting Countries), an organization that was originally formed to boost crude oil prices by limiting production, no longer has the ability to control price spikes by increasing supply, something they have done for decades to prevent non-OPEC suppliers from developing new reserves and forestalling conservation in consuming countries from reducing demand.

Over the forecast period, high prices by historical measures will be needed to keep supply growth paced with the growth in demand. Higher prices are not expected to stifle the U.S. economy or trigger hyperinflation, as the U.S. economy is much less dependent on energy than in the 70s and 80s when the last oil shocks created havoc in the U.S. economy. The impact will be greater on our Asian trading partners (other than Japan) whose economies are much more dependent on energy.

Oil prices are expected to remain high throughout the forecast period with increased price volatility needed to ration available supply against increasing demand. This will result in increased exploration, development of existing reserves, fuel efficiency, and increased development of alternative sources of energy. Long-term higher energy prices will reduce the demand for energy and further reduce economic dependents on energy.

**Tightening of production capacity:** Until recently, job growth has lagged behind growth in GDP more than is normal at this point in a recovery. Firms have found ways to increase production (note: business investment increased by 14 percent last year) while

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hiring as few new employees as possible thereby increasing labor productivity, but their ability to continue to do so is coming to an end as production bumps into capacity along the supply chain. This is good news for workers (more jobs and opportunity for advancement) and good news for retailers (a boost to consumption). But it will put added pressure on wages and inflation if companies hire more workers to boost output and pass the cost along by increasing prices.

## Interest Rates

*“Anyone who has not prepared for higher interest rates is obviously desirous of losing money.”*

Alan Greenspan  
Dec. 2004 Congressional testimony

As expected, the Fed boosted the Fed funds rate by a quarter-point on March 22, bringing the rate to 2.75 percent, and is expected to continue its measured tightening in CY 2005 reaching perhaps 4.25 percent by the end of the year. This would bring the Fed rate into the magic “neutral zone” – where interest rates are high enough to hold down inflation but not high enough to curtail economic growth. At this point the Fed would be more inclined to hold rates steady, unless and until outside forces act upon the economy.

*“The pace of rate moves at upcoming meetings would depend on incoming data.”*

Federal Reserve Policy Board  
Minutes from February 1, 2005

After remaining surprisingly low for the last year and a half, longer-term interest rates (ten year government bonds) jumped from 4.0 to 4.5 percent over the last two weeks. The yield on 10-year government bonds is expected to rise to 5 percent by the end of CY 2005 and to 5.25 percent by the end of CY 2006, then to stabilize for the remainder of the forecast period.

For the week ending March 17, the average rate on 30-year fixed-rate mortgages had increased to 5.95 percent, a year earlier the rate on the 30-year fixed-rate loan stood at 5.72 percent. Over the next two years 30-year mortgage rates could increase by 1 to 1.5 percent, then stabilize around 7 percent. Assuming inflation at 3 percent the real cost of borrowing long-term funds would be at 4 percent.

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## Part 2: Implications of Current Economic Conditions for Forecast

### U.S. Housing

Housing starts were the highest in 21 years in CY 2004, as mortgage rates remained low and the economy strengthened. Housing starts will remain strong through much of the first half of 2005 and will be the second highest in 22 years.

Housing starts have been buoyed by an increase in investment demand. About 25 percent of demand is now for investment (rental and vacation homes) purposes because of poor performance of alternative investments relative to the red-hot housing market. This demand is likely to decrease as higher interest rates and stagnant housing prices make real-estate investment less attractive.

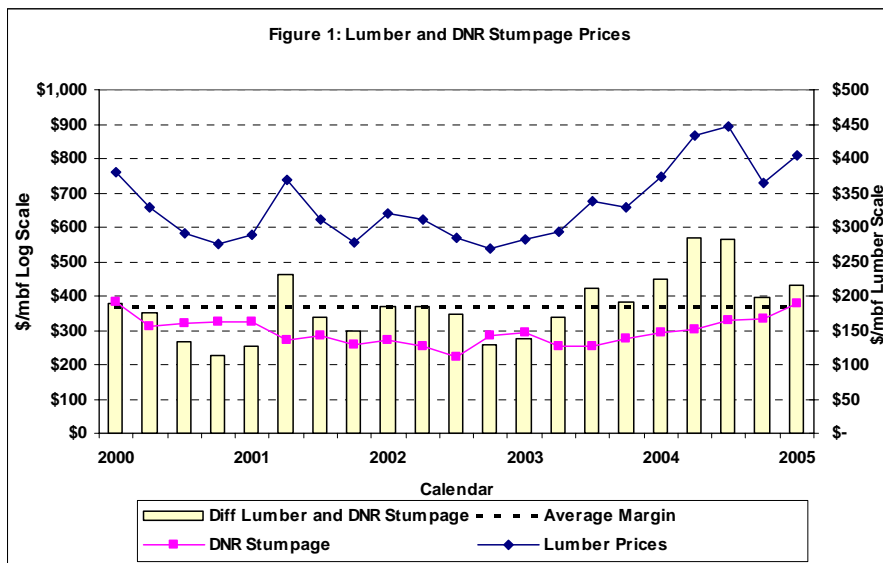
There is typically an 8- to 12-month lag between interest rate increases and their effect on housing starts, and interest rates have only just begun to move higher. In addition, consumer confidence remains high and two years of double digit increase in housing prices, rather than putting a damper on first time buyers, has spurred demand as purchasers worry about being priced out by both higher prices and higher interest rates.

Double-digit increases in housing prices over the last two year has pushed up expected future housing prices and spurred demand. In part because of the strong performance over the past two years, housing starts will be vulnerable to higher interest rates in CY 2006 as increasing housing prices and interest rates combine to squeeze out first time buyers. As inventories of existing new homes build, prices will flatten and even retreat in key markets, contracting speculative demand.

## Lumber Prices

U.S. softwood lumber consumption jumped by 6 percent to a record 60.4 billion board feet in CY 2004. Total lumber consumption is expected to slip from that record pace in CY 2005 by just 1 percent, still the second best year on record. Prices in CY 2005 are expected to be below the record levels set in CY 2004 but still well above average prices in the CY 2000 – 2003 period, providing above average margins to mills. The lumber markets continue to surprise on the up side and are now expected to continue strong for the first three quarters of CY 2005. In response to strong demand, mills are expected to continue operating at or near capacity for most of the year.

Total North American softwood lumber capacity grew nearly 2 percent in 2004 in response to higher prices and profitability. Capacity could continue to expand at a robust pace in CY 2005 if profitability remains strong. As lumber prices and profitability fall capacity growth will slow in CY 06 and beyond.



**Figure 1** shows a comparison of quarterly DNR stumpage prices and an index of lumber prices and the difference between the two. The difference can be used as an index of the margin between DNR stumpage and lumber. The margin increased significantly during the first three quarters of CY 2004 due to higher lumber prices. During the last quarter of CY 2004 and the first

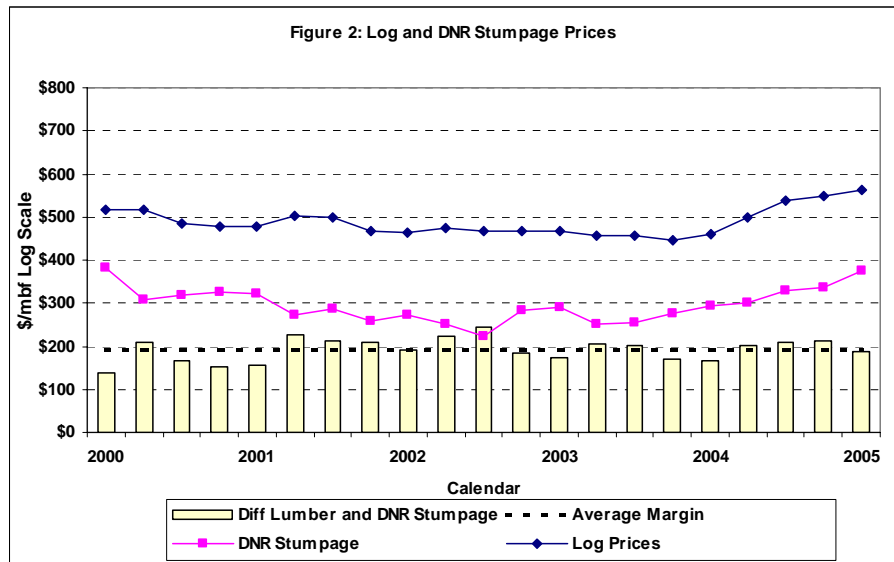
quarter of 2005 this margin has fallen but is still above the average for the CY 2000-2005 period.

## Log and stumpage Prices

Timber prices were up in most US regions in 2004, responding to improved market conditions across the North American forest product sector. Softwood lumber and wood panel producers enjoyed a banner year, with softwood lumber and structural panel production hitting new highs, which translated into healthy demand for softwood sawlogs at lumber and plywood mills. Gains in western sawtimber prices were strong compared with pine sawtimber prices in the U.S. South. Timber harvest from Washington's private lands in CY 2004 was up by 12 percent over CY 2003 due in part to the higher log prices.



**Figure 2** shows a comparison of quarterly DNR stumpage prices and an index of log prices in Western Washington and the difference between the two. The difference can be used as an index of the margin between DNR stumpage and log prices. DNR stumpage prices have increased in nine of the ten quarters since the third quarter of CY 2002. The margin between log and DNR stumpage prices increased during CY 2004. During the first quarter of 2005 this margin has fallen slightly below the average for the CY 2000-2005 period.



## Log and lumber Imports and exports

Strong lumber prices overcame the low dollar to boost lumber imports in 2004, Non-Canadian imports were up by 38 percent in 2004 to 3.1 billion board feet (lumber scale) while Canadian imports were up by 8.3 percent to 20.8 billion board feet (lumber Scale). Non-Canadian imports now makeup 13 percent of total imports up from just 2 percent ten years ago.<sup>1</sup>

Log imports from Canada to the US are down 17.1 percent through October 2004 compared to the same period in 2003. The US imported 313 million board feet of softwood logs for the first ten months of 2004. Going forward log imports from Canada are expected to continue to fall, as lumber prices increase and the Canadian dollar strengthens.

The preliminary U.S. log export figures for CY 2004 show a similarly pattern to that of the previous three years. Log exports to Japan were 595,076 MBF, log exports to Korea were only 12,563 MBF (compared to 33,651 MBF in 2003) and there were no log exports to China for the second year in a row. Total U.S. export volume was down 3.6 percent to Japan and down 38.4 percent to Korea (with no logs sent to China). The Japanese imports of North American logs for 2004 is the lowest since 1965.

Japan's home construction market has cooled dramatically since the mid-90s and the country's demographics (aging population, low immigration) don't look promising for a

<sup>1</sup> March 2005, Wood Markets, Volume 10, No 2 [www.woodmarkets.com](http://www.woodmarkets.com)

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rekindling of the market. Still, an economic upturn could be accompanied by a more than proportionate increase in housing starts as pent-up demand is satisfied.

China on the other hand has the potential for significant growth in new home construction (17.5 million units in 2004). Despite the high level of construction activity, lumber consumption is estimated at less than 3.5 billion board feet per year, only about 6 percent that of the U.S., so even a dramatic increase in China's lumber consumption will have an insignificant increase on world markets. China imported an estimated 4.5 MMbf (Scribner Log Scale) of softwood logs (15.7 million m<sup>3</sup>). Russia Far East supplies 90 percent of China's log imports the remaining 10 percent come from New Zealand. There are a number of reasons why Russia will continue to be the main supplier of logs to China:<sup>2</sup>

1. The close proximity of the two countries;
2. Russian producers are capable of undercutting alternative producers' prices;
3. The species grown in Russia are familiar to China's producers and consumers;
4. China's import tax structure favors Russian logs;
5. Rail infrastructure allows import of Russian logs directly to northern Chinese mills bypassing clogged ports;
6. Increasing use of ocean freight by Russian suppliers enables penetration of all coastal China log-consuming regions.

China's imports of softwood lumber have more than doubled over the past decade while domestic production dropped by two-thirds. Russia and New Zealand are the two major suppliers, supplying an estimated 45 percent of China's total wood imports, while North American suppliers account for about 24 percent of the lumber imported into China. China's lumber production has been shrinking as a result of reduced domestic log supply, but with readily available Russian, New Zealand, and even North American logs and cheap domestic labor, it seems likely that China's wood production industry could rebound and supply China's domestic needs.<sup>3</sup>

China's current growth in wood raw materials is driven by rapidly expanding wood products manufacturing sector. This will be good news for the supplies of wood raw materials, but it will be bad news for manufacturers of wood products exports who will find it hard to compete for China's booming domestic wood market and may even find themselves forced to compete with China's wood products exports in their domestic markets. China's low labor costs and growing capital investment in state-of-the-art value-added manufacturing technology is making the country a formidable competitor in world wood markets.<sup>4</sup>

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<sup>2</sup> Source: The monthly International Solid Wood Report, Volume 10, No. 1 Wood Markets, February 2005

<sup>3</sup> Source: Western Wood Products Association, "Lumber Track" January 7, 2005

<sup>4</sup> Source: The monthly International Solid Wood Report, Volume 10, No. 1 Wood Markets, February 2005

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## Softwood lumber agreement

The Canadian forest sector is getting some relief in its long-running trade battle with the United States over softwood lumber. Acknowledging "ministerial" errors in its calculations, the U.S. Department of Commerce has lowered the duty that Canada pays for alleged dumping to an average of 3.78 per cent from 4.03. As a result, the total combined duties payable on Canadian softwood lumber shipments will fall to an average of 20.96 per cent from 21.21 per cent.

The U.S. Coalition for Fair Lumber Imports wants the administration to open another legal front in the dispute. In a recent memo, the coalition said British Columbia's ban on log exports is illegal and it has urged that a complaint be filed with the World Trade Organization.<sup>5</sup>

## Sawmill capacity increases

*"Milling capacity follows stumpage Supply"*

Economic Truism  
Original Author Unknown

Over the past nine years (CY 1995 to 2004) lumber production in Western Washington and Western Oregon has increased by almost 60 percent from 7.0 to 11.0 billion board feet (lumber scale), its highest level in at least 30 years<sup>6</sup>. State by state totals for CY 2004 are not yet available, but for CY 2003, production in all of Washington and Oregon was 11.4 billion board feet, 6.5 (57 percent) and 4.9 (43 percent) respectively.

Since the sudden reduction in harvest from Federal Lands in the early 90s, logs have flowed south to supply mills that had previously been supplied from federal lands. Surprisingly, the growth in mill capacity in Oregon over the last decade has matched that of Washington despite higher log prices and transportation costs for Oregon mills. In some cases trucking cost can add as much as \$100/mbf to the cost of logs to Oregon mills; by building mills in Washington closer to the supply, mill owners can reduce these shipping costs.

A new round of upgrades of existing mills to become more efficient is being fueled by recent profits from higher lumber prices. A sometimes-unintended byproduct of updating to increase efficiency is increased throughput, which translates into increased capacity. There has also been a flurry of new mills being built in Washington.

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<sup>5</sup> Source: The Globe and Mail

<sup>6</sup> Western Wood Products Association

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Projects starting up or on the drawing board include - Sierra Pacific's 300-million board-foot sawmill in Everett, Wash., and its 250-million-foot stud mill in Aberdeen; a doubling of TreeSource's Tumwater sawmill to 240 million feet; Mason County Forest Products' new stud and dimension mills in Shelton, Wash. 250 million feet; and Hampton Lumber's sawmill in Darrington, scheduled to produce 350 million feet this year, up from 180 million feet last year.

These projects alone will add more than 1 billion feet of production, and reports are circulating of other manufacturers looking to build new sawmills in the state. This will increase the demand for logs by 600 to 700 million board feet, a 20 percent increase over the state's current production. The increase harvest needed by this new capacity is equal to the total harvest of DNR.

This is on top of recent increases in capacity already on line in Washington - Sierra Pacific opened a sawmill in Aberdeen, Lewis County Forest Products started up a stud mill in Winlock, and Simpson Timber began additional production at a new sawmill in Tacoma. While most of the new mills are being built in Washington, Oregon mills will be expanding too, which will further increase the regional demand for logs.

The growth in the Forest Products industry in Washington is attributable to a preponderance of private and state timberlands and more importantly a cheap and stable timber supply than is the case in Oregon and elsewhere in the region. A sharp downturn in log export demand over the last decade has also left more logs available in Washington for lumber production.

## **Factors contributing to the outlook for timber prices**

- Continued growth of the U.S. economy is expected to result in growing demand for lumber and other solid-wood products, and stumpage;
- Weak U.S. dollar against the Canadian dollar, euro, and Japanese yen is expected to make U.S. wood products more competitive on the world market;
- Continued shrinking demand for housing in Japan because of demographics is expected to reduce demand for solid-wood products in Japan.
- An emerging demand for wood in China is expected to increase prices for wood products.
- New, more efficient lumber capacity moving into Washington State is expected to increase the demand for stumpage in Washington;
- Continued substitution of both (non-solid) wood and non-wood products for solid wood products, especially in engineering end-use applications, is expected to lower stumpage prices in general and price premiums for some grades of solid-wood products;
- A trend towards increased utilization and availability of small-diameter logs by mills is expected to result in a reduction in the price premium obtained for the large-diameter tight-grain logs that makes up a disproportionate share of DNR timber sales compared to private lands.

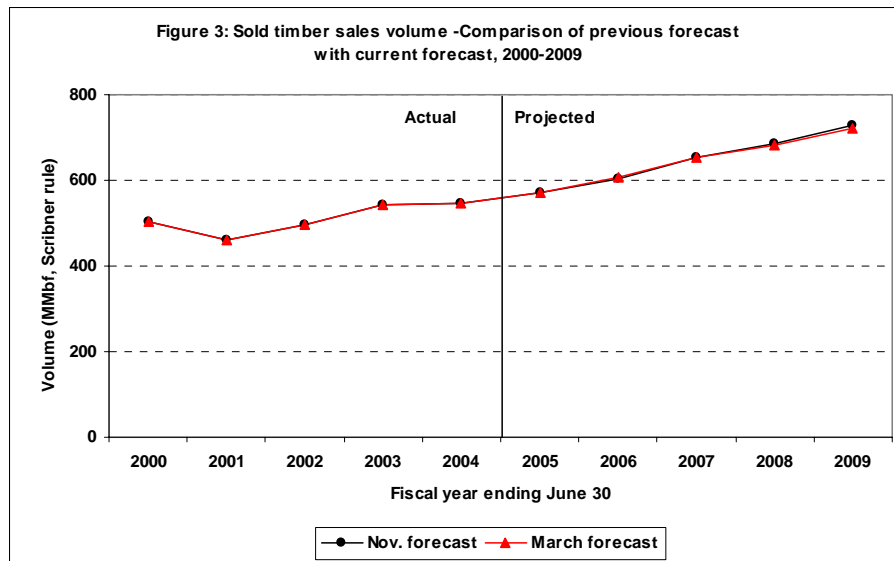
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## Part 3: DNR's Revenue Forecast

### Timber sales volumes

At its September 2004 meeting, the Board of Natural Resources (Board) set the decadal (FY 2004-2013) average sustainable harvest level for DNR in Western Washington at 597 million board feet (MMbf). This forecast is based on a phase-in of the new sustainable harvest for Western Washington. In the current Forecast, the Western Washington sales volume increases from 464 MMbf in FY05 to 610 MMbf in FY 09 while the Eastern Washington sales volume is 106 MMbf in FY 05 and 112 MMbf in FY 04 through FY 09.

Compared to the previous forecast the projected sold timber volume is little changed.



- The projected sales volume was increased by 5 MMbf (1 Percent) in FY 06 and reduced by 5 MMbf in FY 08 and FY 09.

The department is currently evaluating increasing the FY05 target volume above the current level of 570 mmbf in response to the current strong markets, with some volume possibly being moved from FY 06 into FY 05.

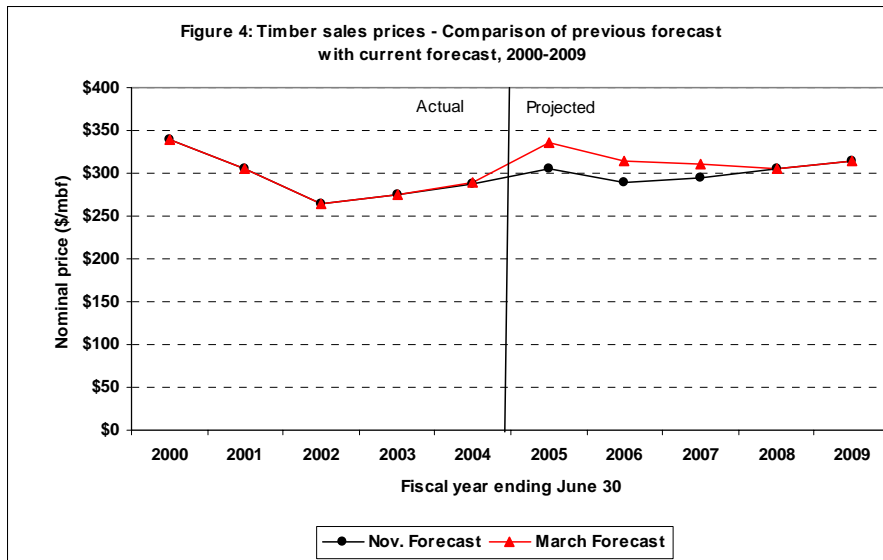
Projections prepared as part of the sustainable harvest analysis presented to the Board show a continued decline in the management fund balances (RMCA & FDA) even at the

higher harvest level. These falling fund balances are due primarily to low timber prices.<sup>7</sup> Despite these predicted shortfalls in management funds, the sales level used in this forecast is based on the higher sales level and are contingent upon the department being able to hire new staff to prepare these sales. Without adequate funding it is unlikely that these higher sales levels can be realized.

## Timber sales prices

FY 05 will mark the third year in a row that timber prices have increased. Timber sales prices for all of FY 04 averaged \$288/mbf, up from \$276/mbf in FY 2003, which was up from \$264/mbf in FY 2002.

Prices have continued their upward trend during FY 05: averaging \$328, \$347, and \$377/mbf during the first, second, and the first two months of the third quarter of FY 05, respectively. The average timber sales price to date (July 2004 through February 2005) for FY 05 is \$348/mbf.



Thus far in FY 05 (July 2004 through February 2005) the department has sold 324 MMbf or 57 percent of the projected sales level for all of FY 05.

Changes from the November 2004 forecast:

- Based primarily on the strength of year-to-date prices, the forecast timber sales price for FY 2005 has been increased by \$30/mbf to \$335/mbf for the full year. This implies an average sales price for the remainder of 2005 of \$317/mbf.
- In addition, the sales price for FY 2006 has been increased by \$25/mbf to \$315/mbf and the sales price for FY 2006 has been increased by \$15/mbf to \$310/mbf.
- Prices for the last two years of the forecast are unchanged from those shown in the November forecast.

<sup>7</sup> See Page 15 of Briefing Material for Independent Committee Vol. 3 available at [http://www.dnr.wa.gov/htdocs/agency/independent\\_review/irc\\_vol3\\_112904update.pdf](http://www.dnr.wa.gov/htdocs/agency/independent_review/irc_vol3_112904update.pdf) for detail.

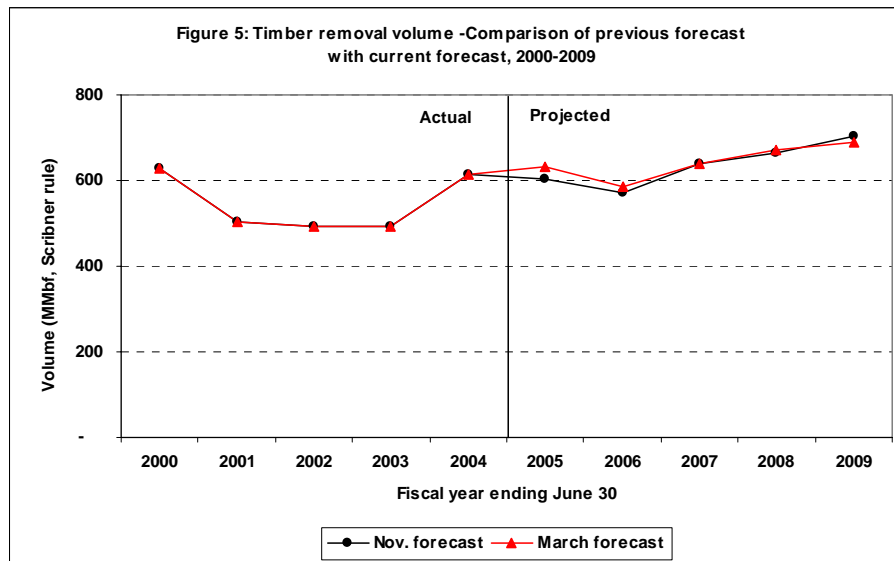
Lower prices during the remainder of FY 05 through FY 08 are based on the assumption that rising interest rates reduce the demand for housing and therefore the demand for wood products. These projections could prove to be too low if housing starts continue to surprise on the high side. Beginning in FY 09 growing demand begins to increase nominal timber sales prices.

## Timber removal volumes

Removals over the last 5 months (Oct. through February) have been very strong due to a combination of strong markets and favorable weather conditions. At 474 MMbf, FY 2005 to date (July through February) has had the best removals for that period since FY 1999. If removals were to finish the year at this pace (seasonally adjusted), total removals for FY 2005 would be 695 MMbf! Based on the purchaser's survey, we expect removals to slow significantly during the last four months of the fiscal year due in part to slower markets but also because of the extremely low volume under contract (sold but not yet harvested) and the fact that the mills have build up their inventory of logs over the mild winter months.

Compared with the November 2004 forecast, estimated timber removal volumes are:

- Higher in FY 2005 by 26 MMbf (4 percent) to 631 MMbf;
- Higher in FY 2006 by 12 MMbf (2 percent) to 585 MMbf;
- Removal volumes decrease slightly (by 8 MMbf in total) during the last three years of the forecast as volume is brought forward into FY 05-06.



The slow-down in forecast removals in the second half of FY 2005 and FY 2006 is based primarily on the fact that the volume under contract is very low and purchasers will use the period to rebuild their volume under contract to more normal levels. It is also a reflection of an anticipated reduction in housing starts during this period and a corresponding reduction in the demand for forest products.

Compared to the November 2004 forecast, total forecast harvest volume is increased by 30 MMbf over the entire forecast period, while there is a 5 MMbf reduction in the volume sold. This results in a reduction of 35 MMbf in the volume under contract at the end of the forecast period.

If the anticipated slowdown in housing starts does not materialize then the forecast of removals during FY 05 and FY 06 could prove to be low.

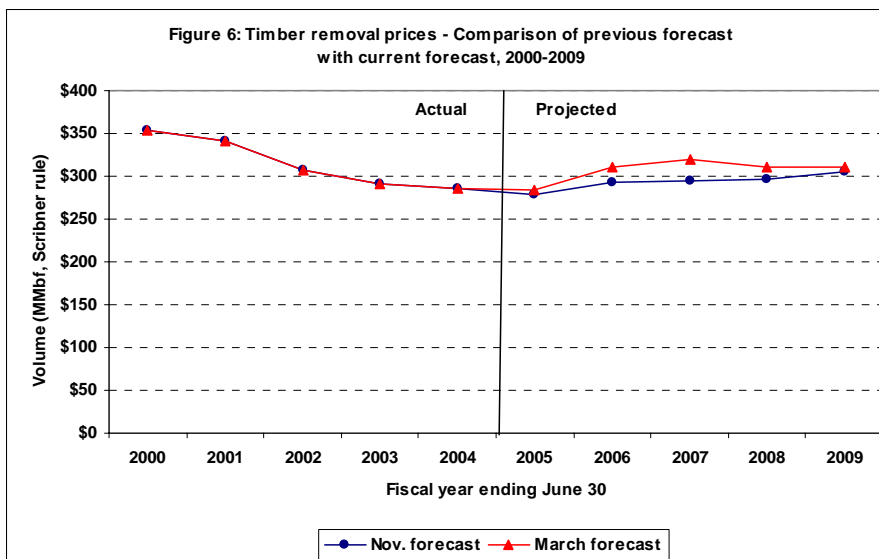
Finally, the increases in removal volumes during the last three years of the forecast are the result of increasing sales volumes. Should those planned sales levels not be realized then the removal levels forecast during later years would be correspondingly lower.

## Uncut inventory under contract

Purchasers have reduced the volume under contract by about 20 percent over the last 12 months (March 2004 through February 2005) to just 543 MMbf. The volume under contract is projected to increase during the remainder of FY 2005 as the department increases sales relative to the volume harvested and to end FY05 at 630 MMbf. This would be down 63 MMbf or 9 percent from the volume under contract at the end of FY 04.

Over the remainder of the forecast period, the volume under contract is expected to increase in proportion to the increase in the department's sales level. By the end of FY 09 the inventory will have grown to 709 MMbf, with a value of \$221.0 million. Compared to the November Forecast, projected uncut timber under contract at the end of 2009 is project to be down by 35 MMbf and \$11.5 million.

## Timber removal price



As a result of higher sales prices, removal prices increase over the forecast period as high-priced sales are removed.

Compared with the November 2004 forecast removal prices are up:

- \$4/mbf (2 percent) in FY 05;
- \$17/mbf (6 percent) in FY 06;



- \$25/mbf (9 percent) in FY 09;
- \$15/mbf (5 percent) in FY08; and
- \$5/mbf (2 percent) in FY 09.

Compared to the November Forecast, timber removal prices increase, not only because of higher sale prices but also because some timber is harvested sooner than was projected in the previous forecast.

The average removal price year to date is \$287/mbf. Removal price will be lower during the remainder of FY05, averaging \$270/mbf as low-priced inventory that must be removed in FY 05 draws down average removal prices.

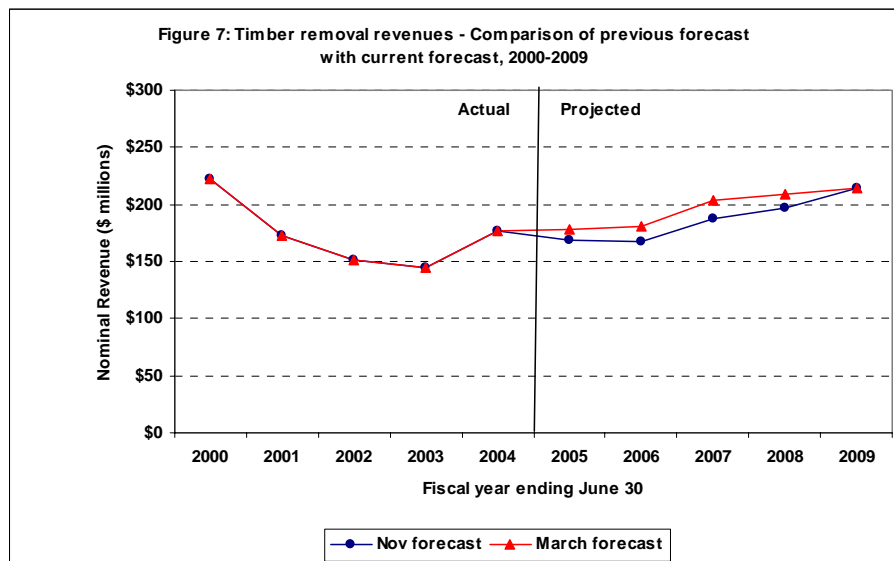
While sales prices bottomed out in FY 02, removal prices will bottom out in FY 05 and start to rise in FY 06.

## Timber removal revenue

Timber removal revenues are the product of removal volume and removal prices.

Compared with the November 2004 forecast timber removal revenues are up:

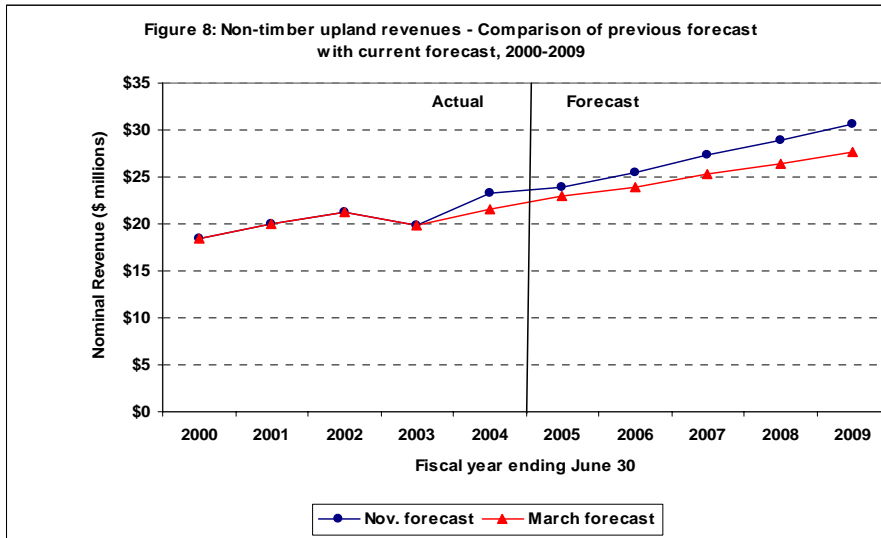
- \$10 million (6 percent) higher in FY 05.
- Eight percent in FY 06 and FY 07 (\$13.6 and \$15.8 million respectively)
- Six percent in FY 08 and almost unchanged (up just \$0.4 million) in FY 09.



The higher timber removal revenues in FY 05 are due primarily to higher removal volumes, while the higher revenues in FY 06-08 are primarily the result of higher sales prices and subsequent removal prices.

## Non-timber upland revenues

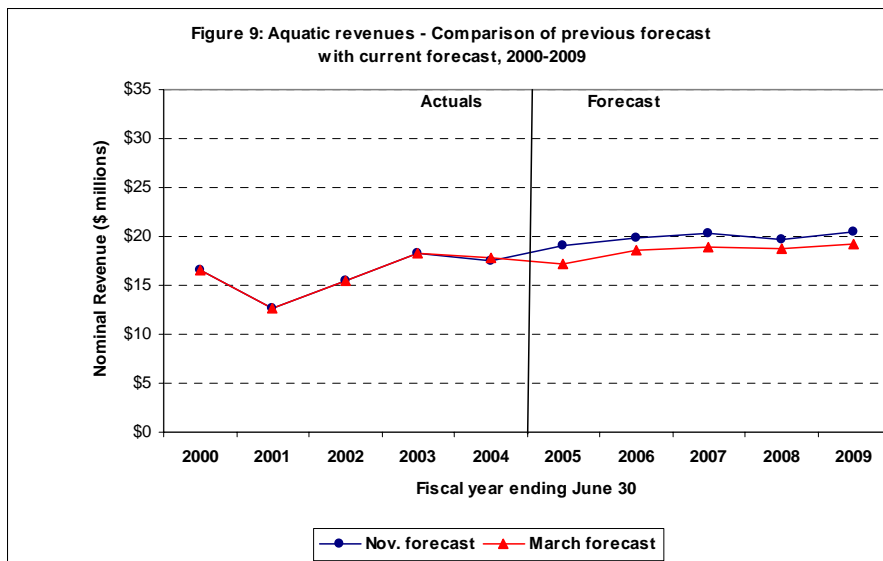
Non-timber upland revenues are primarily from leases and the sale of valuable material (other than timber). In the forecast these revenues are divided into: 1) Commercial lease revenue, and 2) agricultural, and other leases and mineral. (See Table 1 for detail.)



Compared with the November 2004 forecast non-timber upland revenue are down:

- \$1.0 million (4 percent) in FY 05,
- \$1.5 and \$2.0 million (6 percent and 7 percent) in FY 06 and FY 07, and
- \$2.5 and \$3.0 million (9 percent and 10 percent) in FY 08 and FY 09.

All of the reduction in forecast non-timber upland revenue is from commercial leases. The department has been expecting to add an average of one new commercial lease property each year over the forecast period. Because of a very competitive commercial real estate market, the department has not been able to acquire new properties with returns that meet the department's current acquisition target. As a result, the projected revenues from commercial real estate have been reduced to reflect fewer acquisitions.



## Aquatic revenues

Actual aquatic revenues in FY 04 were \$17.8 million down from 18.2 million in FY 03. Actuals through February FY 05 were 1.5 million less than projected in the November forecast due primarily to lower-than-projected geoduck

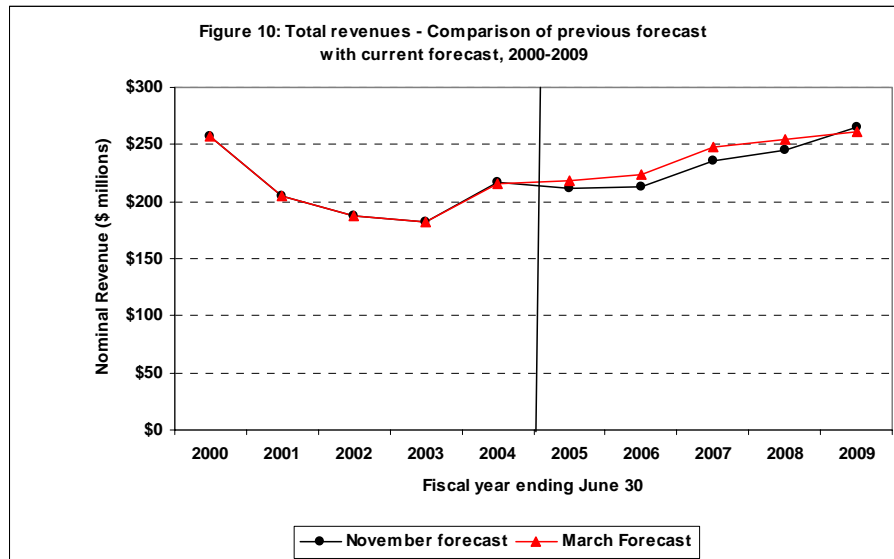
harvest in the last quarter. Compared to the November Forecast projected revenue are reduced by:

- \$1.9 million (10 percent) in FY 05;
- \$1.3 (6 percent) and \$1.4 million (7 percent) in FY 06 and FY 07;
- \$1.0 (5 percent) and \$1.2 million (6 percent) in FY 08 and FY 09.

## Total revenues from all sources

Compared to the November 2004 forecast, forecast total revenues are up:

- \$7.2 million (3 percent) in FY 05;
- \$10.9 and \$12.4 million (5 percent) FY 06 and FY 07;
- \$8.8 million (4 percent) in FY 08 and down \$3.9 million (-1 percent) in FY 09.



From the November 2004 to the March 2005 forecast, forecast revenues from all sources increased by \$34 million. Timber revenues increased by \$52 million - \$42 million of this increase was the result of higher forecast timber sales prices and \$10 million was the result of higher forecast removal levels. These increases in forecast timber revenues were partially off set by reductions in forecast non-timber revenues of \$18 million.

In nominal price, forecast total revenues increase to \$260.8 million at the end of the forecast period (FY 09) —just \$3.8 million more than the total revenue ten years earlier (in FY 2000) of \$257 million.

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## Some uncertainty caveats

DNR strives to produce the most accurate and unbiased forecast possible based on the current policy direction of the department and the information available at the time the forecast is produced. Actual revenues will depend on future policy decisions made by the department, as well as market conditions beyond the control of the department. The following is a list of major potential policy changes and changes in market conditions that could impact future revenues from DNR-managed lands:

- As indicated above, the forecast timber sales volumes are based on the Board of Natural Resources adopted sustainable harvest level. This higher sales level is predicated on the department being able to hire the staff needed to prepare, sell, and comply the additional sales. An analysis done for the Board found that at the current maximum management fund deduction of 25 percent, the management fund balances (RMCA and FDA) fall below zero even with the higher sales level. If adequate funding is not available to prepare the additional sales, then the current forecast sales level may not be reached and actual revenues would fall short of those projected.
- The department's new sustainable harvest level is being challenged in court. If the courts were to rule against the department, the sustainable harvest level could be reduced and/or implementation could be delayed, either of which would result in actual revenues falling short of those forecast.
- The downturns in timber sales prices and removal levels during the last half of FY 05 and FY 06 are based on the assumption that housing starts slump during that period due primarily to higher interest rates and reduced consumer demand. Should housing starts prove to be stronger than projected, then timber prices as well as removal levels would be expected to be higher. This would result in higher revenues than those forecast.
- Demand for housing and forest products could be greater than projected if interest rates increase significantly brought on by the twin deficits and falling dollar and lack of pent up demand results in a significant slowdown in the housing market. A slump in demand for forest products greater than currently projected, would reduce timber prices and removal volumes.
- Continued loss in the value of the U.S. dollar particularly relative to the Canadian dollar, euro and the yen could result in higher stumpage prices and timber revenues than currently forecast.

These and other future events not listed here undoubtedly will have impacts on future revenues. As more information becomes available, DNR will incorporate that information into future forecast updates.

**Table 1: Projected trust land timber sales, removals and revenue, and non-timber revenue  
By Source**

Total Rev March 05 (in Millions of Dollars)

Change is from November 04 Forecast

<b>Sold Timber Sales</b>	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Volume (mmbf)	548	570	607	652	682	722
Change	1	-	5	-	(5)	(5)
% Change	0%	0%	1%	0%	-1%	-1%
Price (\$/mbf)	\$288	\$335	\$315	\$310	\$305	\$315
Change	\$0	\$30	\$25	\$15	\$0	\$0
% Change	0%	10%	9%	5%	0%	0%
Value of Timber Sales (in Millions of Dollars)	\$ 158.0	\$ 191.0	\$ 191.2	\$ 202.1	\$ 208.0	\$ 227.4
Change	\$ 0.4	\$ 17.1	\$ 16.6	\$ 9.8	\$ (1.5)	\$ (1.6)
% Change	0%	10%	10%	5%	-1%	-1%

<b>Timber Removals</b>	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Volume (mmbf)	616	631	585	638	671	690
Change	0	26	12	(3)	7	(12)
% Change	0%	4%	2%	0%	1%	-2%
Price (\$/mbf)	\$286	\$283	\$310	\$319	\$311	\$310
Change	\$0	\$4	\$17	\$25	\$15	\$5
% Change	0%	2%	6%	9%	5%	2%
Timber Revenue (in Millions of Dollars)	\$ 176.5	\$ 178.6	\$ 181.4	\$ 203.6	\$ 208.7	\$ 214.1
Change	\$ (0.0)	\$ 10.1	\$ 13.6	\$ 15.8	\$ 12.3	\$ 0.4
% Change	0%	6%	8%	8%	6%	0%

<b>Non-Timber Revenue</b>	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
Agricultural and Mineral	\$ 14.2	\$ 14.9	\$ 15.4	\$ 16.3	\$ 16.9	\$ 17.6
Change	\$ (1.7)	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	-11%	0%	0%	0%	0%	0%
Commercial	\$ 7.4	\$ 8.0	\$ 8.5	\$ 9.0	\$ 9.5	\$ 10.0
Change	\$ -	\$ (1.0)	\$ (1.5)	\$ (2.0)	\$ (2.5)	\$ (3.0)
% Change	0%	-11%	-15%	-18%	-21%	-23%
Aquatic revenue	\$ 17.8	\$ 17.2	\$ 18.5	\$ 18.9	\$ 18.7	\$ 19.2
Change	\$ 0.3	\$ (1.9)	\$ (1.3)	\$ (1.4)	\$ (1.0)	\$ (1.2)
% Change	2%	-10%	-6%	-7%	-5%	-6%
Total Non-timber	\$ 39.4	\$ 40.1	\$ 42.4	\$ 44.2	\$ 45.1	\$ 46.8
Change	\$ (1.4)	\$ (2.9)	\$ (2.8)	\$ (3.4)	\$ (3.5)	\$ (4.2)
% Change	-3%	-7%	-6%	-7%	-7%	-8%

<b>Total All Source</b>	\$ 215.8	\$ 218.7	\$ 223.9	\$ 247.8	\$ 253.8	\$ 260.8
Change	\$ (1.5)	\$ 7.2	\$ 10.9	\$ 12.4	\$ 8.8	\$ (3.9)
% Change	-1%	3%	5%	5%	4%	-1%

\$ -

<b>Trust land Transfer</b>	\$ 18.4	\$ 24.4	\$ -	\$ -	\$ -	\$ -
Change	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	-	-	-	-

Note: Trust land Transfer is not included in distribution of revenues

Excludes interest and Land Bank Transactions, Fire Assessments, permits, and fees

Totals may not add due to rounding.

Table 2: Projected Trust land timber removal revenue and Non-timber revenue  
By Fund

Total Rev Nov (in Millions of Dollars)

Change is compared to Nov. 04

Preliminary Draft Subject to change without notice.

Management Funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
041	RMCA - Upland	\$ 23.3	\$ 26.2	\$ 26.7	\$ 30.5	\$ 30.4	\$ 32.9
	Change	\$ -	\$ 0.6	\$ 1.3	\$ 2.2	\$ 1.2	\$ 0.2
	% Change	0%	2%	5%	8%	4%	1%
041	RMCA - Aquatic	\$ 7.4	\$ 7.2	\$ 7.7	\$ 7.9	\$ 7.8	\$ 8.0
	Change	\$ 0.1	\$ (0.9)	\$ (0.6)	\$ (0.7)	\$ (0.5)	\$ (0.6)
	% Change	2%	-11%	-7%	-8%	-6%	-7%
014	FDA	\$ 23.8	\$ 22.0	\$ 21.9	\$ 23.9	\$ 25.7	\$ 25.1
	Change	\$ (0.0)	\$ 1.5	\$ 1.4	\$ 0.7	\$ 0.7	\$ (0.9)
	% Change	0%	7%	7%	3%	3%	-3%
<b>Total Management Funds</b>		<b>\$ 54.4</b>	<b>\$ 55.4</b>	<b>\$ 56.3</b>	<b>\$ 62.3</b>	<b>\$ 64.0</b>	<b>\$ 66.1</b>
	Change	\$ 0.1	\$ 1.2	\$ 2.1	\$ 2.3	\$ 1.5	\$ (1.3)
	% Change	0%	2%	4%	4%	2%	-2%

Current funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
113	Common School Construction	\$ 49.8	\$ 57.4	\$ 54.2	\$ 60.8	\$ 63.2	\$ 70.0
	Change	\$ -	\$ 1.6	\$ (0.3)	\$ 0.1	\$ (0.3)	\$ (0.5)
	% Change	0%	3%	-1%	0%	0%	-1%
999	Forest Board counties	\$ 70.7	\$ 68.0	\$ 69.3	\$ 73.6	\$ 77.6	\$ 76.0
	Change	\$ -	\$ 4.7	\$ 4.0	\$ 2.4	\$ 3.4	\$ (1.7)
	% Change	0%	8%	6%	3%	5%	-2%
001	General Fund	\$ 5.6	\$ 2.8	\$ 2.6	\$ 3.8	\$ 4.9	\$ 4.2
	Change	\$ -	\$ 0.1	\$ 0.5	\$ 0.0	\$ 2.2	\$ 1.3
	% Change	0%	3%	26%	1%	82%	44%
348	University Bond Retirement	\$ 0.6	\$ 0.5	\$ 2.2	\$ 2.6	\$ 2.3	\$ 2.4
	Change	\$ -	\$ (0.1)	\$ 0.4	\$ 1.2	\$ (0.1)	\$ (0.1)
	% Change	0%	-18%	25%	82%	-5%	-4%
347	WSU	\$ 0.8	\$ 0.8	\$ 0.9	\$ 0.9	\$ 0.9	\$ 1.0
	Change	\$ -	\$ (0.1)	\$ (0.1)	\$ (0.1)	\$ (0.1)	\$ (0.1)
	% Change	0%	-9%	-10%	-11%	-11%	-12%
042	CEP&RI	\$ 6.0	\$ 5.2	\$ 5.1	\$ 7.8	\$ 6.4	\$ 6.5
	Change	\$ -	\$ (0.4)	\$ 0.4	\$ 2.2	\$ 1.5	\$ 0.9
	% Change	0%	-7%	9%	40%	30%	16%
036	Capitol Building construction	\$ 5.6	\$ 7.6	\$ 7.2	\$ 8.9	\$ 8.6	\$ 9.9
	Change	\$ -	\$ 0.6	\$ (0.0)	\$ 1.2	\$ (0.4)	\$ (0.7)
	% Change	0%	9%	-1%	15%	-4%	-6%
061/3	Normal (CWU, EWU, WWU, TESC)	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1
	Change	\$ -	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	% Change	0%	20%	22%	26%	28%	29%
Other Funds		\$ 1.0	\$ 0.0	\$ -	\$ 0.0	\$ 0.1	\$ 0.1
	Change	\$ -	\$ (0.0)	\$ (0.1)	\$ (0.1)	\$ (0.1)	\$ (0.0)
	% Change	0%	-8%	-100%	-71%	-55%	-28%
<b>Total Current Funds</b>		<b>\$ 140.1</b>	<b>\$ 142.2</b>	<b>\$ 141.6</b>	<b>\$ 158.6</b>	<b>\$ 164.1</b>	<b>\$ 170.2</b>
	Change	\$ -	\$ 6.4	\$ 4.9	\$ 7.0	\$ 6.2	\$ (1.0)
	% Change	0%	5%	4%	5%	4%	-1%

Aquatic lands Enhancement Account		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
02R		\$ 10.4	\$ 10.0	\$ 10.8	\$ 11.0	\$ 10.9	\$ 11.2
	Change	\$ 0.2	\$ (1.0)	\$ (0.7)	\$ (0.7)	\$ (0.5)	\$ (0.6)
	% Change	1%	-9%	-6%	-6%	-4%	-5%

Table 2(Continued): Projected Trust land timber removal revenue and Non-timber revenue  
By Fund

Total Rev Nov (in Millions of Dollars)

Change is compared to Nov. 04

Preliminary Draft Subject to change without notice.

Permanent Funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
601	Agricultural college	\$ 3.6	\$ 3.8	\$ 4.6	\$ 5.1	\$ 4.8	\$ 3.7
	Change	\$ -	\$ 0.6	\$ 1.2	\$ 1.6	\$ 0.8	\$ (0.3)
	% Change	0%	21%	34%	44%	20%	-8%
604	Normal School Permanent	\$ 3.2	\$ 2.1	\$ 4.0	\$ 3.8	\$ 3.6	\$ 3.1
	Change	\$ -	\$ 0.2	\$ 1.4	\$ 0.6	\$ 1.2	\$ 0.2
	% Change	0%	11%	55%	19%	50%	8%
605	Common School Permanent	\$ 0.4	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.4
	Change	\$ -	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	% Change	0%	15%	15%	14%	15%	16%
606	Scientific Permanent	\$ 3.2	\$ 4.6	\$ 5.6	\$ 5.4	\$ 5.5	\$ 5.8
	Change	\$ 0.0	\$ (0.0)	\$ 1.7	\$ 0.8	\$ (0.4)	\$ (0.8)
	% Change	0%	-1%	43%	17%	-6%	-11%
607	University Permanent	\$ 0.4	\$ 0.3	\$ 0.8	\$ 1.2	\$ 0.6	\$ 0.5
	Change	\$ -	\$ (0.0)	\$ 0.3	\$ 0.7	\$ 0.0	\$ (0.2)
	% Change	0%	-10%	75%	120%	6%	-33%
<b>Total Permanent Funds</b>		<b>\$ 10.9</b>	<b>\$ 11.0</b>	<b>\$ 15.2</b>	<b>\$ 15.9</b>	<b>\$ 14.9</b>	<b>\$ 13.5</b>
	Change	\$ 0.0	\$ 0.8	\$ 4.6	\$ 3.7	\$ 1.7	\$ (1.0)
	% Change	0%	8%	44%	30%	13%	-7%

Total All funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09
<b>Total</b>		<b>\$ 215.8</b>	<b>\$ 218.7</b>	<b>\$ 223.9</b>	<b>\$ 247.8</b>	<b>\$ 253.8</b>	<b>\$ 260.8</b>
	Change	\$ 0.3	\$ 7.4	\$ 10.9	\$ 12.2	\$ 8.9	\$ (3.9)
	% Change	0%	3%	5%	5%	4%	-1%

Note: Trust land Transfer is not included in distribution of revenues

Excludes interest and Land Bank Transactions, Fire Assessments, permits, and fees

Totals may not add due to rounding.